

**SURVEYOR’S MAINTENANCE REPORT
ON THE
KATE ENSLEY REGULATED DRAIN
FOR THE
BARTHOLOMEW-SHELBY COUNTY JOINT DRAINAGE BOARD**
September 5, 2017
Revised November 15, 2017
Addendum November 30, 2017

BASIS FOR THIS REPORT

This drain was placed #2 on the priority list for Joint Bartholomew-Shelby County Regulated Drains at a public meeting of the Bartholomew –Shelby Joint Drainage Board on September 21, 2015.

HISTORY AND DESCRIPTION

DESCRIPTION	C.O.B.	PAGE	DATE
Petition	92	138	
Descriptions, notices	93	359	
Surveyor’s Report, assessments	94	451	April 7, 1947
Surveyor’s Report, assessment changes	94	493	
Drain complete	95	566	

This regulated drain is an open ditch that outlets into the Flat Rock River and runs north into Shelby County, terminating at SR 252. Total length of the drain from the 1947 plans is 14,431.5 feet.

The lower end beginning point is described as a point on the north bank of the Flat Rock River 700 feet east of and 210 feet north of the center corner of Section 8, Township 10 North, Range 6 East in Bartholomew County.

The upper end terminating point is described as a point that is on the south right-of-way line of SR 252 and 1435 feet west of the Northeast corner of Section 32, Township 11 North, Range 6 East in Shelby County.

CONDITION OF THE DRAIN

With the exception of the lower ¼ mile at the outlet, the drain in Bartholomew County has been kept mostly free of tree growth. The drain is lined with trees on both sides in Shelby County. A profile survey conducted in 1998 located a significant number of tiles out letting into the drain, with several of them just above the invert of the drain. With very few curves located on the drain, the alignment of the drain is good.

CROSSINGS

The following are the vehicular crossings located on the drain. The outlet point into Flat Rock River is station 0+66.

STATION	TYPE	PROPERTY OWNER
27+21	Culvert	CR 900N, Bartholomew County
54+99.5	Culvert	CR 950N, Bartholomew County
86+00	Bridge	CR 1200S, Shelby County
96+24	multiple culvert pipes	Richard Goodin

There are also several properties in Bartholomew County that have steel truss irrigation bridges across the drain which are considered temporary structures.

CHARACTER OF THE WATERSHED

The watershed is predominately agricultural row crop in use. There are scattered homesteads throughout the watershed and several large lot (5-10 ac.) residential subdivisions.

IMPROVMENTS WITHIN THE DRAIN RIGHT-OF-WAY

Currently there are four (4) center pivot irrigation bases located adjacent to the drain. The location of these structures will need to be evaluated further as maintenance plans are developed.

STATUS OF DRAIN FUND

Currently there has been no drain fund established for this drain.

SCOPE OF MAINTENANCE WORK PROPOSED

I recommend cleaning the drain in phases or sections beginning at the lower end as follows:

1. Remove all trees and brush from both sides of the drain. |
2. Excavate the bottom of the drain to provide sufficient depth to install private tile into the drain and excavate the side banks to a slope sufficient to stabilize them.

Because of the large amount of spoil that will need to be spread, the spreading of the spoil may extend beyond the 75-foot right-of-way as provide in I.C. 36-9-27.33.(b).

3. Construct rock chutes at surface water inlets.
4. Place rip rap revetment on the outside of curves to protect the side banks form erosion.
5. Preserve private drainage out letting into the drain.
6. Re-seed all disturbed areas.
7. Establish and maintain access on both sides of the drain where practical.
8. Lower or replace crossings as necessary. I recommend as plans are prepared for each section of the drain, the surveyor determine the flow capacity requirements for each crossing, the property owner determine the travel capacity requirements, and the drainage board establish a watershed-property owner cost share for replacement where applicable.
9. Spray to control brush and weeds.
10. Repeat excavation as necessary to keep drain clean.

ESTIMATED ANNUAL COST OF PERIODIC MAINTENANCE

After the drain had been cleaned as recommended, the estimated annual cost of periodically maintaining the drain would be \$5,000.

AFFECTED AREA

Attached is a map of the approximate watershed boundary. A proposed watershed boundary will be determined once the existing crops have been harvested and on site determinations can be made.

ASSESSMENT OPTIONS

There are approximately 3,200 acres within the approximate watershed boundary. Assessment rates of \$3.00 per acre and \$10.00 per lot would generate approximately \$10,000 annually. This amount would be sufficient to clean and maintain the drain.

Respectfully submitted,

E.R. Gray, III LS
Bartholomew County Surveyor

attachments

Addendum
November 30, 2017

AFFECTED AREA

A proposed watershed boundary has been delineated and currently there are 412.4 acres from Bartholomew County and 2,818.4 acres from Shelby County within the watershed of the Kate Ensley Drain for a total of 3,231.0 acres.

An assessment schedule has been developed for the watershed using rates of \$3.00 per acre for parcels greater than 3.33 acres and \$10.00 per lot for parcels 3.33 acres or less.

The watershed as presently delineated consist of 3,150.32 acres in parcels greater than 3.33 acres and 42 parcels (lots) in parcels 3.33 acres or less.

The proposed assessment schedule will generate annual revenue of \$9,870.96.

Attached are an Affected Area (Watershed) Map and the proposed assessment schedule.